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ABSTRACT

A study examined the effectiveness of the Reading Recovery program in the Irving, Texas, Independent School District. Subjects were students discontinued from the Reading Recovery program because they scored at or above the 40th national percentile, selected students from Chapter/Title I programs on campuses that did not implement Reading Recovery, and randomly selected students from the same grade level cohort. Subjects' scores on the reading comprehension subtest of the Iowa Tests of Basic skills were compared. Results indicated that (1) Reading Recovery students showed a potential to achieve the objective of the 50th national percentile; (2) Reading Recovery students tended to score higher than Chapter/Title I students but lower than non-Chapter I students; (3) a majority of the discontinued students avoided referral to additional remedial programs; and (4) Reading Recovery students tended to maintain gains in reading comprehension across the years. Findings support the continuation of Reading Recovery as an effective early-intervention strategy for improving reading performance of at-risk students. (Contains 4 tables and 9 figures of data.) (RS)

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Evaluation of Reading Recovery Program

by

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&

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Evaluation of Reading Recovery Program

by

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&
Dr. Whitcomb Johnstone

Reading Recovery is an intensive, one-to-one tutoring program for young children having difficulty in beginning reading. It is typically implemented with students in first grade. Proponents of Reading Recovery claim that this early intervention program has immediate- and long-term-effects on students' reading performance, based on the findings such as the following:

- Regardless of sex, economical status, social or linguistic group, the Reading Recovery program students make accelerated progress in the program and continue to make satisfactory progress after release from the program (Clay, 1990).
- Reading Recovery students make high gains on standardized achievement test, and out score the comparison group (students with average reading ability).
- Ninety percent of the Reading Recovery students were in the average range or above on the tests of reading.
- Three years later, 69% of discontinued (completing) students exceed the average range in tests of reading.
- Reading Recovery students also perform better on spelling tests.
- Fewer than 1% of the discontinued students from a grade cohort need further referral.

Method

The major goal of this study is to determine whether the Reading Recovery program in the Irving Independent School District is effective by confirming or disconfirming as many of the early findings as possible. To determine whether the group of children who successfully completed Reading Recovery could read material that matched the average range of ability in the school, the Reading Recovery discontinued students were compared with "traditional" Chapter/Title I students and with a sample of non-Title I students selected from the same grade cohort. Also, their performance on reading tests is tracked across years to investigate the existence of the long-term effects.

In making the comparisons that follow, it is noteworthy that, there is a possibility that Reading Recovery and traditional Chapter/Title I students differed initially in reading ability. Because the two program designs are drastically different, the Reading Recovery program can only serve a fraction of students that the more traditional "pull-out" remedial reading program is able to. In other words, schools implementing Reading Recovery can only serve a smaller number of "greatest need" students in comparison to campuses with the more traditional remedial program. Without any control over this potential source of initial discrepancy in student selection, this study makes the assumption that student selection does not favor either Reading Recovery or the traditional Title I pull-out students.

Subjects

Reading Recovery Discontinued Students -- These students successfully completed Reading Recovery (average 60 lessons) and were officially released (discontinued) from the program. Each of these students qualified for Chapter/Title I services. This is the focus group of this study.

Chapter/Title I Sample -- These students were selected from Chapter/Title I programs on campuses that did not implement Reading Recovery.

Non-Ch. I Sample -- These students were selected at random from the same grade level cohort, excluding students in the Reading Recovery and Chapter I program.

Dependent Variables

Reading Ability: ITBS reading comprehension scores.

Research Questions

Research Question #1: Do the majority of the Reading Recovery discontinued students avoid referral to any remedial programs after first grade?

Research Question #2: Do the discontinued Reading Recovery students maintain their gains or make continuous progress in reading across years?

Research Question #3: Do the discontinued Reading Recovery children outdistance other Chapter/Title I students in reading and catch up with their non-Chapter/Title I classmates after the program?

Results

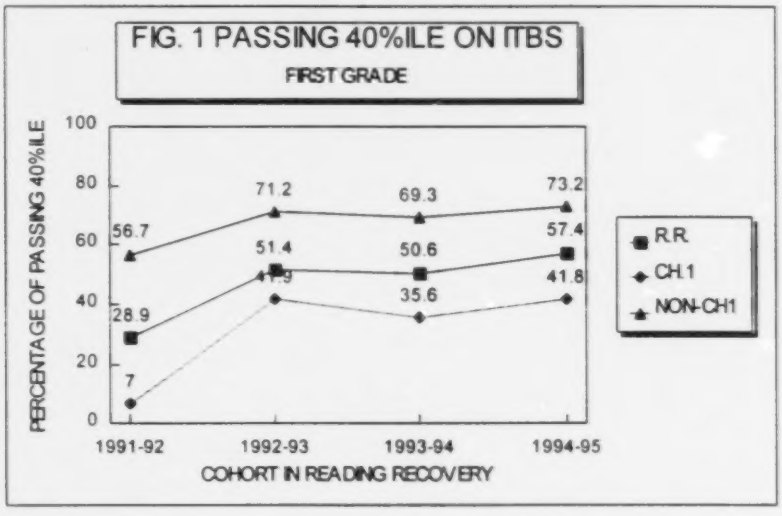
Preventing Additional Remedial Services

Do the majority of the discontinued Reading Recovery students avoid referral to any remedial program later?

One major objective of Reading Recovery program is to avoid referral to any remedial programs later. In the district, 40th national percentile is the cutoff score on the ITBS for determining need for remedial program. That is, students who score below 40th national percentile will be referred to a remedial program. This evaluation therefore adopts the 40th national percentile as the standard to determine program effectiveness. Following chart displays percentage of students in each group passing this remedial cutoff score.

The result in Figure 1 show that, at the end of the first grade, more Reading Recovery discontinued students passed the 40th percentile cutoff score than "Chapter I" students and this difference was found across four different cohorts. More specifically, three of four cohorts show that more than one half of the Reading Recovery discontinued students (51.4%, 50.6% & 57.4%) passed the requirement compared to an average of 40% of Chapter I students (41.9%, 35.6% & 41.8%) who passed the same standard. In 1991-92 cohort, both groups performed significantly

lower than their peers in three other cohorts. However, Reading Recovery discontinued students still performed better (28.9% passing) than the Chapter I comparison group (7.0% passing). In summary, the majority of the discontinued students passed the 40th percentile cutoff score for not being referred to a remedial reading program the following year.



Do the Reading Recovery discontinued students maintain gains on measures of reading comprehension?

Figures 2 to 4 display the results of passing the 40th national percentile for students from three different groups (Reading Recovery, Chapter/Title 1, and Never been referred). It was found that Reading Recovery discontinued students appear to maintain their gains in reading across years, at least in terms of percentage of passing the 40th percentile. For example, Reading Recovery discontinued students from 1991-92 cohort outperform students in traditional Chapter/Title I program after the end of the first grade and maintain in this trend throughout the elementary grades, except fourth grade (see Fig. 2).

Similar patterns to 1991-92 cohort of having Reading Recovery students score between students in traditional Chapter I program and students who never were referred to any remedial reading program were found for three other cohorts (see Figure 3 through 5). In summary, the majority of the Reading Recovery students have successfully avoided the need for another remedial reading program after they exited from the Reading Recovery program, and they tend to maintain their gains in reading comprehension. Students in traditional Chapter I program, on the other hand, did not show the same level of success in avoiding repeated remedial placement as their Reading Recovery comparison group.

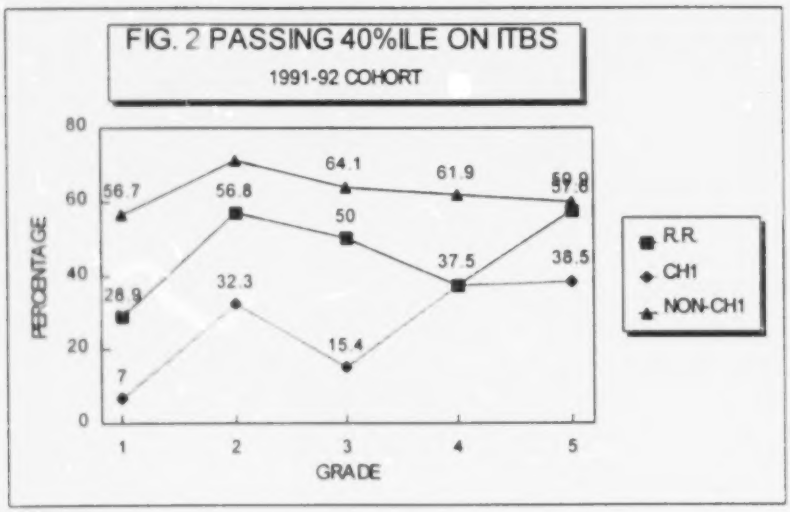


FIG. 2 PASSING 40%ILE ON ITBS
1991-92 COHORT
PERCENTAGE
GRADE
R.R.
CH1
NON-CH1
56.7
56.8
64.1
61.9
59.8
28.9
32.3
50
37.5
38.5
7
15.4

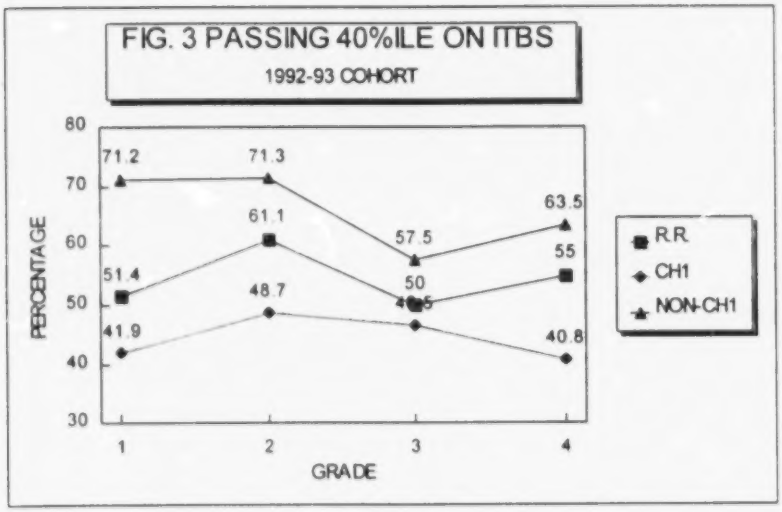


FIG. 3 PASSING 40%ILE ON ITBS
1992-93 COHORT
PERCENTAGE
GRADE
R.R.
CH1
NON-CH1
71.2
71.3
63.5
61.1
57.5
55
51.4
48.7
50
41.9
40.8

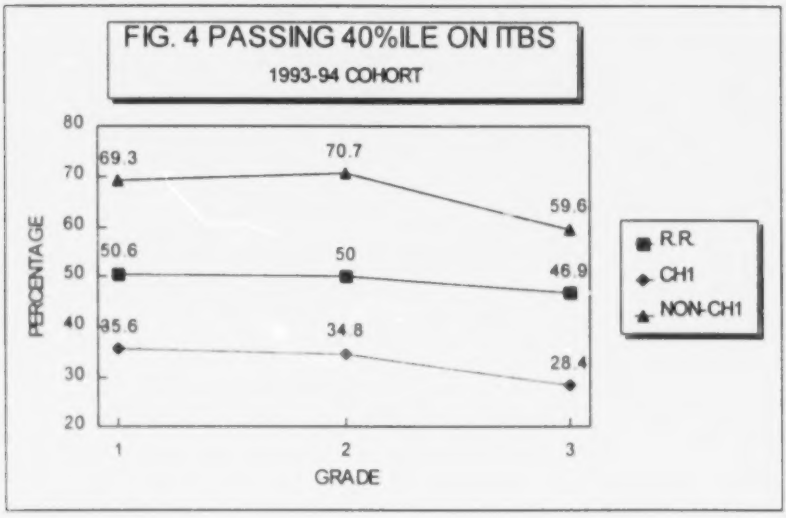


FIG. 4 PASSING 40%ILE ON ITBS
1993-94 COHORT
PERCENTAGE
80
70
60
50
40
30
20
69.3
70.7
59.6
50.6
50
46.9
35.6
34.8
28.4
1
2
3
GRADE
R.R.
CH1
NON-CH1

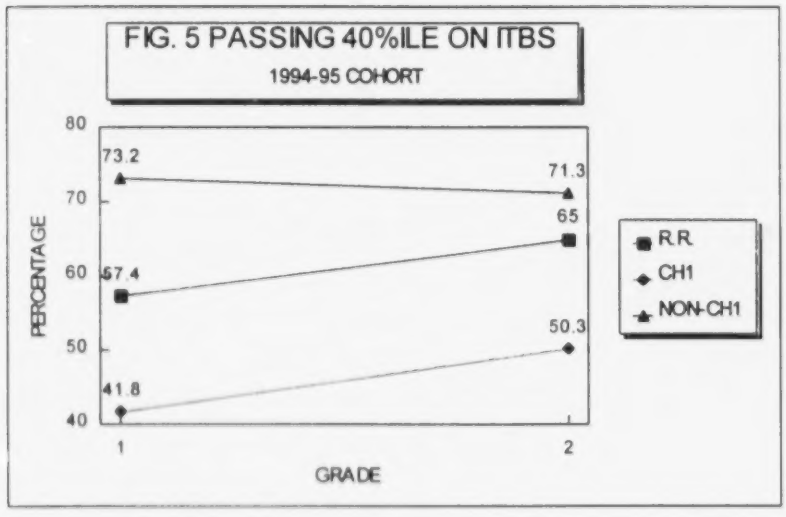


FIG. 5 PASSING 40%ILE ON ITBS
1994-95 COHORT
PERCENTAGE
80
70
60
50
40
73.2
71.3
65
57.4
50.3
41.8
1
2
GRADE
R.R.
CH1
NON-CH1

Read at the Average Level

Do the discontinued Reading Recovery children read at an "average" level in nation?

The definition of "average" on a national norm-referenced tests is NCE equals 50. We found that, on average, Reading Recovery students read at a level very close to the average ability in nation, and they consistently demonstrate the improvement toward NCE 50 score. For example, Reading Recovery students in 1991-92 cohort scored NCE=39.91 on ITBS reading comprehension at the end of their first grade and the score increased to 47.0 at the end of third grade and slightly decreased to 42.8 NCE scores at the end of their fifth grade (see figure 6). A similar pattern of showing consistent improvement toward NCE 50 score was found in all other cohort except the 1993-94 cohort (see figure 7 through 9). In summary, even though they may not read exactly at the national 50th percentile, the Reading Recovery students demonstrate a potential to reach that criterion by showing consistent improvement on their NCE scores. In some grades, the NCE score drops below their previous year's score, but Reading Recovery students still tend to perform better than their Chapter I comparison group.

Do the Reading Recovery discontinued students read at an "average" level in the District? How do they compare to students in the traditional Chapter/Title I program?

Three groups of students: Reading Recovery discontinued students, students participating in traditional Chapter I program and students who had never been through remedial reading program, are compared with each other. Summary results of their mean NCE scores for ITBS reading comprehension and the test of significance between mean scores can be found for all cohorts (1991-92 to 1994-95) in Tables 1 through 4, respectively.

The results in Table 1 for the 1991-92 cohort show that at the end of the first grade when all students have finished their designated program, Reading Recovery students scored significantly lower than students who had never been through a remedial reading program. However, when they were in third and fifth grades, the differences between the groups are not significant, which indicates that cohort 1991-92 Reading Recovery students can read at about the same level as "average" students do (see Table 1 Column R.R. Vs Non). The differences in reading ability between Reading Recovery students and students in the Chapter I program were found only when they were at the end of the first grade. However, significant differences in reading comprehension were found between Chapter I students and non-remedial students in the District across all five years. In summary, though Reading Recovery students only demonstrate statistically significant differences in some grades, they tend to perform better than students in the traditional Chapter/Title I program in terms of their reading comprehension.

A very similar pattern emerges for the results of the comparison of NCE scores between groups in the 1992-93 cohort (see Table 2). More specifically, Reading Recovery students demonstrated that they read at the same level as the non-Chapter I students in the district when they were in the third and fourth grade. Students in the traditional Chapter I program were able to demonstrate the same competence only when they are in the third grade. In other words, a significant difference is less likely between non-Chapter I students and Reading Recovery students than between non-Chapter I students and students participating in the traditional remedial reading program. A similar pattern of results was found for students in the 1994-95 cohort.

The results for students in the 1993-94 cohort however, are different (see Table 3). Though Reading Recovery students tend to score between average students in the District and students in traditional program, there were significant differences in reading comprehension in comparison to non-Chapter I students in any grade. Reading Recovery Students were not significantly different in reading comprehension when they were compared to students in the traditional remedial reading program. In other words, Reading Recovery students in the 1993-94 cohort read at about the same level as students in traditional Chapter I program; and neither Reading Recovery or Chapter I show that they read at the same level as non-Chapter I students in the district do.

Conclusions and Recommendations

This study was designed to answer three research questions regarding effectiveness of Reading Recovery program that are: 1) Do the Reading Recovery discontinued students read at a level comparable to the average ability students? 2) Do they avoid referral to additional remedial reading programs? 3) Do they maintain gains in reading comprehension? We found that, in comparison to the national norm, the reading recovery students show a potential to achieve the objective of the 50th national percentile. In comparison to the other two groups of students in the study (i.e., Chapter/Title I and non-Chapter I students), Reading Recovery students tend to score higher than Chapter/Title students but lower than non-Chapter I students. The results of the statistical analysis show that a significant difference is less likely between non-Chapter I students and Reading Recovery students than between non-Chapter I students and students in traditional Chapter I remedial reading program. The results for avoiding referral to additional remedial reading services show that the majority of the discontinued students passed the 40th percentile cutoff score for not being referred to a remedial reading program. After tracking students across years, we also found that Reading Recovery students tend to maintain gains in reading comprehension.

The findings of the evaluation study support three research hypotheses: first, Reading Recovery program is an effective intervention to help students improve reading comprehension to a level of the average students; second, the majority of Reading Recovery discontinued students do NOT need additional remedial reading services and last, the majority of Reading Recovery students maintain gains in reading comprehension. The results support continuation of Reading Recovery as an effective early-intervention strategy for improving the reading performance of at-risk students.

Table 1. Summary of ANOVA Test of Significance Between Means (1991-92)

			Results of Test of Significance bet. Means			
	N	Mean	Overall	R.R. vs Ch1.	R.R. vs Non.	Ch1 vs Non.
1st Grade						
R.R.	45	39.9	Yes	Yes	Yes	Yes
Ch1	43	27.8				
Non-Ch1	1852	48.6				
2nd Grade	37	45.1	Yes	No	Yes	Yes
R.R.	31	41.7				
Ch1	1938	55.3				
Non-Ch1						
3rd Grade						
R.R.	10	47.0	Yes	No	No	Yes
Ch1	13	36.8				
Non-Ch1	516	51.5				
4th Grade						
R.R.	30	40.0	Yes	No	Yes	Yes
Ch1	24	39.7				
Non-Ch1	1870	49.0				
5th Grade						
R.R.	33	42.8	Yes	No	No	Yes
Ch1	26	38.9				
Non-Ch1	1902	48.7				

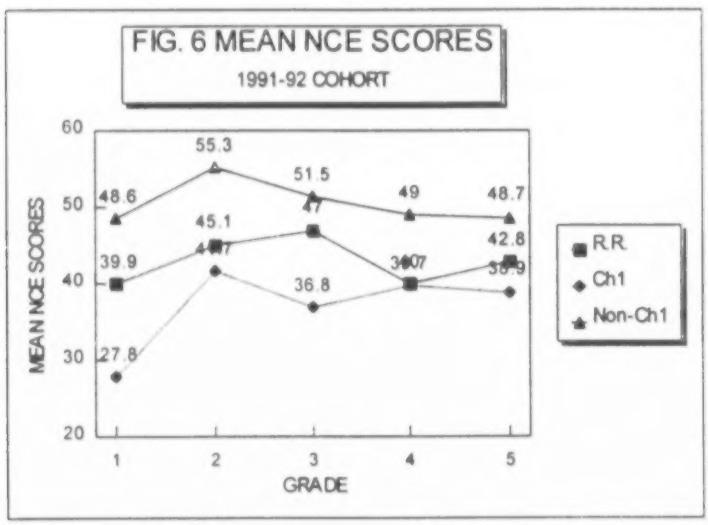


Table 2. Summary of ANOVA Test of Significance Between Means (1992-93)

			Results of Test of Significance bet. Means			
	N	Mean	Overall Sig.	R.R. vs Ch1.	R.R. vs Non.	Ch1 vs Non.
1st Grade						
R.R.	68	43.8	Yes	No	Yes	Yes
Ch1	93	39.5				
Non-Ch1	1790	55.5				
2nd Grade						
R.R.	59	48.6	Yes	No	Yes	Yes
Ch1	78	45.2				
Non-Ch1	1856	55.5				
3rd Grade						
R.R.	56	42.1	No	No	No	No
Ch1	71	43.9				
Non-Ch1	1869	47.4				
4th Grade						
R.R.	49	44.2	Yes	No	No	Yes
Ch1	67	38.7				
Non-Ch1	1826	49.2				

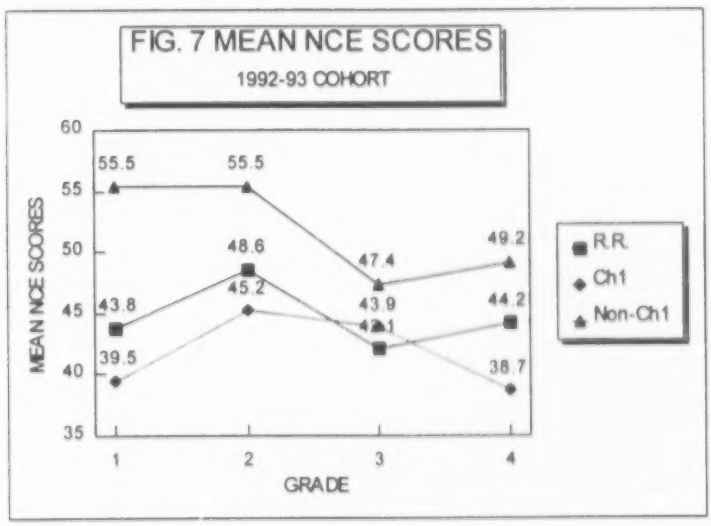


Table 3. Summary of ANOVA Test of Significance Between Means (1993-94)

			Results of Test of Significance bet. Means			
	N	Mean	Overall Sig.	R.R. vs Ch1.	R.R. vs Non.	Ch1 vs Non.
1st Grade						
R.R.	85	44.1	Yes	No	Yes	Yes
Ch1	90	37.7				
Non-Ch1	1665	54.3				
2nd Grade						
R.R.	70	41.7	Yes	No	Yes	Yes
Ch1	89	37.7				
Non-Ch1	1845	53.5				
3rd Grade						
R.R.	64	39.5	Yes	No	Yes	Yes
Ch1	81	36.4				
Non-Ch1	1816	48.8				

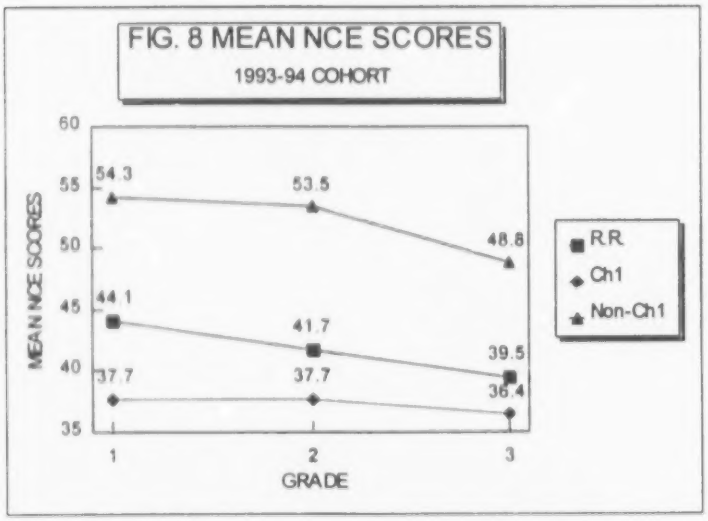


Table 4. Summary of ANOVA Test of Significance Between Means (1994-95)

			Results of Test of Significance bet. Means			
	N	Mean	Overall Sig.	R.R. vs Ch1.	R.R. vs Non.	Ch1 vs Non.
1st Grade						
R.R.	47	42.1	Yes	No	Yes	Yes
Ch1	194	39.6				
Non-Ch1	1522	54.5				
2nd Grade						
R.R.	40	48.7	Yes	No	No	Yes
Ch1	169	42.3				
Non-Ch1	1772	53.7